

What is claimed is:

1. A heat sink assembly for a heat generating component, the heat sink assembly comprising:
  - a heat sink comprising a base having a bottom face for contacting the heat generating component;
  - thermal grease spread on the bottom face;
  - a mounting frame for mounting the heat sink to the heat generating component, the mounting frame defining an opening for receiving the heat generating component therethrough such that the heat generating component contacts the bottom face, the opening aligned with the thermal grease;
  - locking means for locking the heat sink to the mounting frame; and
  - a grease cover detachably attached to the mounting frame, the grease cover comprising a main portion covering the opening of the mounting frame and the thermal grease.
2. The heat sink assembly as claimed in claim 1, wherein the mounting frame comprises a pair of longitudinal beams on opposite longitudinal sides of the opening, and the locking means comprises a plurality of cutouts defined in opposite longitudinal sides of the base of the heat sink, and a plurality of fasteners formed on the longitudinal beams of the mounting frame and engaging in the cutouts.
3. The mounting frame assembly as claimed in claim 2, wherein the main portion of the grease cover comprises a bottom plate and a plurality of side walls cooperatively forming a cavity in communication with the opening of the mounting frame.
4. The mounting frame assembly as claimed in claim 3, wherein each of the longitudinal beams defines a groove, and the grease cover comprises a pair of

flanges extending from first and second side walls thereof, the flanges being fittingly received in the grooves.

5. The mounting frame assembly as claimed in claim 4, wherein an ear extends from a third side wall of the main portion of the grease cover and beyond one corresponding border of the mounting frame, for facilitating operation of the grease cover.
6. The mounting frame assembly as claimed in claim 2, wherein the base of the heat sink defines a pair of holes in opposite lateral side portions thereof, the mounting frame further comprises a pair of lateral beams on opposite lateral sides of the opening, a pair of posts is formed on the lateral beams, and the posts are fittingly received in the holes.
7. An electronic device assembly comprising:
  - a circuit board having an electronic component mounted thereon;
  - a heat sink comprising a base having a bottom face;
  - thermal grease spread on the bottom face of the base; and
  - a unitary mounting frame for mounting the heat sink to the circuit board, the mounting frame comprising:
    - a body defining an opening for extension of the electronic component therethrough to contact the bottom face on which the thermal grease is spread;
    - locking means for locking the heat sink to the mounting frame; and
    - latching means for latching the mounting frame to the circuit board; and
  - a grease cover detachably attached to the mounting frame, the grease cover comprising a main portion covering the opening of the mounting frame and the thermal grease; whereinafter the grease cover is detached from the mounting frame, the combined mounting frame and heat sink can directly be attached to the circuit board.

8. The electronic device assembly as claimed in claim 7, wherein the combined mounting frame and heat sink is attached to the circuit board by way of the mounting frame.
9. The electronic device assembly as claimed in claim 8, wherein the circuit board defines a pair of locking slots on opposite sides of the electronic component, the mounting frame comprises a pair of longitudinal beams at opposite longitudinal sides of the opening, and the latching means comprises a pair of latches formed on bottoms of the longitudinal beams and engaging in the locking slots.
10. The electronic device assembly as claimed in claim 8, wherein the circuit board defines a plurality of pairs of locating openings surrounding the electronic component, and the body of the mounting frame comprises a plurality of pairs of feet received in the locating openings respectively.
11. The electronic device assembly as claimed in claim 9, wherein the base of the heat sink defines a plurality of cutouts in opposite longitudinal sides thereof, and the locking means comprises a plurality of fasteners formed on the longitudinal beams and engaging in the cutouts.
12. The electronic device assembly as claimed in claim 9, wherein the base of the heat sink defines a pair of holes in opposite lateral side portions thereof, the mounting frame further comprises a pair of lateral beams at opposite lateral sides of the opening, a pair of posts is formed on the lateral beams, and the posts are fittingly received in the holes.
13. The electronic device assembly as claimed in claim 9, wherein each of the longitudinal beams defines a groove, and the grease cover comprises a pair of flanges extending from opposite first and second sides of the main portion thereof, the flanges being fittingly received in the grooves.

14. The electronic device assembly as claimed in claim 13, wherein an ear extends from a third side of the main portion of the grease cover and beyond one border of the mounting frame, for facilitating operation of the grease cover.
15. The electronic device assembly as claimed in claim 7, wherein a recessed portion is defined in the bottom face of the base, and the thermal grease is spread on the recessed portion.
16. A heat sink assembly comprising:
  - a circuit board having an electronic component mounted thereon;
  - a heat sink comprising a base with thermal grease spread on a surface thereof;
  - a mounting frame essentially positioned under the surface of the base and defining an opening which allows one of the base and the electronic component to extend therethrough for contact with the other; and
  - a grease cover detachably attached to the mounting frame and covering the opening of the mounting frame before the heat sink is mounted via the mounting frame to the circuit board.
17. The heat sink assembly of claim 16, wherein protrusions are extended from the mounting frame, the protrusions embracing the grease cover before the heat sink is mounted to the circuit board, and the protrusions extending through the circuit board when the heat sink is mounted to the circuit board.
18. The heat sink assembly of claim 17, wherein two of the protrusions snappingly latch the circuit board at a side thereof opposite to the electronic component when the heat sink is mounted to the circuit board.
19. The heat sink assembly of claim 16, wherein said mounting frame includes means attached to the heat sink, and means attached to the printed circuit board, respectively.

20. The heat sink assembly of claim 19, wherein both said means are integrally formed with the mounting frame.